THE

AËRONAUTICAL JOURNAL.

VOL. XXII.

INDEX.

A

Abstracts— PAGE

Acrobatic Flying 270
Aerial Warfare, The Importance of Numbers in 295-296
— Waves and Wind Direction 251
Aeronautical Units 287
Aeronautics, Present-Day Problems in 296-297
Aeroplane Engine Design 115
— Engine Test Apparatus 381
— Performance 429
— Pigeon Tests 296
— Propellers of Steel with Variable Pitch 175
Aeroplanes of To-day 288
Air, Physics of the 429
— Propeller Performance and Design by the Specific Speed Method ... 291-292
— Propulsion 266-267, 331-332
Airscrew, Motion of the Air through the 271
— Theory of the 249-250
Alignment Chart for Obtaining Heights 378-379
Atmosphere, General Movements of the 268-269
— Stratification of the 122
— Structure of the 382
Austrian "Berg" Single-Seater Fighter 294-295
— Memorandum on a Meteorological Service for the Air Service in Peace Time 299-300
Balsa Timber in Costa Rica 288
Balloon Fabrics, Permeability of 304-305
Calculation of Stresses in Aeroplanes 267-268
Carbide for Aerial Motors, Use of ... 378
Clement Bayard Rigid Airship 293
Cleveland Aero Engine 115-116
Construction of Aeroplanes 279
"Continental" Two-Seater Pusher Biplane 117
Co-operation of Aeroplanes with Artillery 302
Curtiss Aeroplane Cylinder, Manufacturing the 293
D.F.W. Biplane brought down during a Raid on Paris 116
D.H.S Pursuit Biplane 381
De Havilland Aeroplane, 300-h.p. ... 266
Design of Air Turbines 119-120
Die Castings in Aircraft, Appreciation of 173-174
Electric Dynamometer 268
Exhaust Headers and Mufflers for Aeroplane Engines 331
Fluid Disturbance in Aeroplane Motor ... 297
Fluids in Motion, Reaction due to ... 202
Fokker D.VII. Single-Seater Biplane Scout 378
Formation Flying 290
French Avion-Renault Biplane ... 269-270
German Aeroplanes 266
— H.W. Biplane C.L.II 201-302
— Twin-Engined A.E.G.-G.IV. Machine 300-301
Giant Aeroplane "Zeppelin" ... 427-429
Glue, Notes on 332-333
Hanover Biplane 117-119
Impregnation of Wings of Aeroplanes ... 172
International Aircraft Conference... ... 289
— — Standards 289-290
Italian War Aviation 380-381
Italy's Plans for Postal Aerial Routes ... 121
June Aerial Mail Operations 303
Lateral Dihedral, The 297-298
Meteorological Kites 382
Mineral Oils for Lubricating Aero Engines 293
Model M.T.2 Lawson Biplane 289
Models of Aeroplanes 172
Modern Aeronautic Engines 331
— Aeroplane, The 288
Observation Balloon, New Type of ... 301
Propeller Calculations, Conventional 303-304, 331
Report on Aircraft Supply of Great Britain 290
Roland Biplane D.II 294
"Rumpler" Biplane C.4 119
Seaplane and its Construction, The ... 287
— Floats, Location of 116-117
Spanish Aeroplane Routes, Proposed 302-303
Spark Plug, New Aeroplane ... 381-382
Speed and Direction of Aeroplanes over the Water, To Ascertain the 332
— Meter for Aircraft 171
Spruce in Aeroplane Construction 172-173
— Production, Organised Aeroplane 171-172
Swiss Aeroplane Sheds 268
Temperature, Pressure and Humidity of the Air over Austria 290-291
Timber, Advance Rot and Latent Defects in Aeroplane 288
Transatlantic Flight by Aeroplane 379-380
Vincent Multiplex Compass 267

THE

AËRONAUTICAL JOURNAL.

VOL. XXII.

INDEX.

A

Abstracts— PAGE

Acrobatic Flying 270
Aerial Warfare, The Importance of Numbers in 295-296
— Waves and Wind Direction 251
Aeronautical Units 287
Aeronautics, Present-Day Problems in 296-297
Aeroplane Engine Design 115
— Engine Test Apparatus 381
— Performance 429
— Pigeon Tests 296
— Propellers of Steel with Variable Pitch 175
Aeroplanes of To-day 288
Air, Physics of the 429
— Propeller Performance and Design by the Specific Speed Method ... 291-292
— Propulsion 266-267, 331-332
Airscrew, Motion of the Air through the 271
— Theory of the 249-250
Alignment Chart for Obtaining Heights 378-379
Atmosphere, General Movements of the 268-269
— Stratification of the 122
— Structure of the 382
Austrian "Berg" Single-Seater Fighter 294-295
— Memorandum on a Meteorological Service for the Air Service in Peace Time 299-300
Balsa Timber in Costa Rica 288
Balloon Fabrics, Permeability of 304-305
Calculation of Stresses in Aeroplanes 267-268
Carbide for Aerial Motors, Use of ... 378
Clement Bayard Rigid Airship 293
Cleveland Aero Engine 115-116
Construction of Aeroplanes 279
"Continental" Two-Seater Pusher Biplane 117
Co-operation of Aeroplanes with Artillery 302
Curtiss Aeroplane Cylinder, Manufacturing the 293
D.F.W. Biplane brought down during a Raid on Paris 116
D.H.S Pursuit Biplane 381
De Havilland Aeroplane, 300-h.p. ... 266
Design of Air Turbines 119-120
Die Castings in Aircraft, Appreciation of 173-174
Electric Dynamometer 268
Exhaust Headers and Mufflers for Aeroplane Engines 331
Fluid Disturbance in Aeroplane Motor ... 297
Fluids in Motion, Reaction due to ... 202
Fokker D.VII. Single-Seater Biplane Scout 378
Formation Flying 290
French Avion-Renault Biplane ... 269-270
German Aeroplanes 266
— H.W. Biplane C.L.II 201-302
— Twin-Engined A.E.G.-G.IV. Machine 300-301
Giant Aeroplane "Zeppelin" ... 427-429
Glue, Notes on 332-333
Hanover Biplane 117-119
Impregnation of Wings of Aeroplanes ... 172
International Aircraft Conference... ... 289
— — Standards 289-290
Italian War Aviation 380-381
Italy's Plans for Postal Aerial Routes ... 121
June Aerial Mail Operations 303
Lateral Dihedral, The 297-298
Meteorological Kites 382
Mineral Oils for Lubricating Aero Engines 293
Model M.T.2 Lawson Biplane 289
Models of Aeroplanes 172
Modern Aeronautic Engines 331
— Aeroplane, The 288
Observation Balloon, New Type of ... 301
Propeller Calculations, Conventional 303-304, 331
Report on Aircraft Supply of Great Britain 290
Roland Biplane D.II 294
"Rumpler" Biplane C.4 119
Seaplane and its Construction, The ... 287
— Floats, Location of 116-117
Spanish Aeroplane Routes, Proposed 302-303
Spark Plug, New Aeroplane ... 381-382
Speed and Direction of Aeroplanes over the Water, To Ascertain the 332
— Meter for Aircraft 171
Spruce in Aeroplane Construction 172-173
— Production, Organised Aeroplane 171-172
Swiss Aeroplane Sheds 268
Temperature, Pressure and Humidity of the Air over Austria 290-291
Timber, Advance Rot and Latent Defects in Aeroplane 288
Transatlantic Flight by Aeroplane 379-380
Vincent Multiplex Compass 267

PAGE

Water-Gas for Balloons 298-299
White Pine in Aeroplane Work ... 292-293
Wind at Various Heights 250
Wood, The Grain of, with Special Reference to the Direction of the Fibres 301
Woods used in Aeroplane Construction... 174
Woods, Physical Properties of Aeroplane 120-121

Aerial Science, Ltd., Balance Sheet ... 132-133
Aeronautical Inventions 207-208
Appointments 2, 89, 209, 311, 340

B

Barling, W. H. Timber: Its Identification and Mechanical Properties ... 134-152
— and H. A. Webb. Design of Aeroplane Struts 313-329
Bibliography ... 251, 272, 310, 338, 388, 426
Bryan, Prof. G. H. Compressible Fluids 255-257
— The Nomenclature and Notation of Aeroplane Rigid Dynamics 51-53

C

Clarkson, Coker F., General Manager, Society of Automotive Engineers, U.S.A. The Liberty Engine ... 108-109
Compressible Fluids. *Prof. G. H. Bryan* 255-257
Computation of Aerodynamic Support, The. *W. R. D. Shaw* 109
Constantinople and Back by Aeroplane in War Time, To. *F. Handley-Page* 418-422
Correspondence 67, 87, 112-113, 273-275, 330

D

Design of Aeroplane Struts. *W. H. Barling, and H. A. Webb* 313-329
Dines, W. H. Meteorology in Relation to Aeronautics 17-29
Durand, Dr. W. F. Some Outstanding Problems in Aeronautics ... 183-201
Dynamics of Fluid Propulsion, with Special Reference to the Problem of the Airscrew, The. *M. A. S. Riach* ... 258-262

E

F

Faraday, W. Barnard. Classification of Coniferæ 169-170
Fighting in the Air. *Major Cochrane Patrick, D.S.O., R.A.F.* 391-413
Filon, Major, Note by 369-372
Flying in Clouds. *Sir Henry Fowler* ... 49-50
Fowler, Sir Henry. Flying in Clouds ... 49-50

G

Green, Major F. M. The Technical History of the Aeroplane 3-16

H

Hackett, W. W. and A. G., of Oldbury, Birmingham. Steel Tubes, Tube Manipulation, and Tubular Structures for Aircraft 90-103

PAGE

Handley-Page, F. To Constantinople and Back by Aeroplane in War Time 418-422
Honours and Awards 1, 70, 124

I

J

John, W. E. Shop Organisation: A Simple Scheme 71-80
Juvenile Lecture, The. *Dr. A. P. Thurston* 54-60

K

L

Lectures—
Educational 2, 38
The Juvenile 54-60
Liberty Engine, The. *Coker F. Clarkson*, General Manager, Society of Automotive Engineers, U.S.A. 108-109
Library, The 2, 69
— Recent Additions to the 30, 37-38, 88, 114, 176, 251, 289, 338, 388
Low, Major A. R., R.A.F. Stress Optical Experiments 341-369

M

Matthews, R. Borlase. The Use of Jigs in Aeroplane Manufacture 39-48
Meetings 30-35, 61-66, 81-85, 104-108; *Annual General and Council's Report* 125-131, 153-
Members, New 1-2, 37, 69, 89, 177, 209, 281, 339-340, 389-390.
Meteorology in Relation to Aeronautics. *W. H. Dines* 17-29

N

Nomenclature and Notation of Aeroplane Rigid Dynamics, The. *Prof. G. H. Bryan* 51-53
Notices 1-2, 37-38, 69-70, 89-90, 123-124, 177, 209-210, 253-254, 281, 339-340, 389-390.

O

Obituary—
Barry, Colonel Sir John Wolfe 37
Clark, Captain Graham Alexander (corrected page 37) 1
Cooper, Mr. Bertram George 123
Dyson, Prob. Flight Officer E. H. ... 37
Hall, Engineer-Commander W. B. ... 37
Hopkinson, Major Bertram 253
McNeale, Terence Charles 389
Mort, George Frederick 389
Musgrave, Major Herbert 124
Reddie, Lieutenant Francis Graham ... 253

P

Pannell, J. R. The Wind Channel: Its Design and Use 211-240

PAGE

Patent Specifications (Aeronautics), Abridgments of Recent. Compiled by *Mr. H. T. P. Gee, Patent Agent* 203-206, 252, 276-279, 306-308, 334-337, 384-388, 423-426.
Patrick, Major Cochrane. Fighting in the Air 391-413
Principle of Relativity, The. *R. de Villamil* 282-284

Q

R

Resistance to Torsion of Woods, The. *Herbert Stone* 263-265

Reviews—
Aircraft in War and Commerce. *W. H. Berry* 68, 111
Airman's Outings, An. *"Contact"* ... 68
Aviation Engines. *Lieutenant Victor Pagé* 110-111
— Pocket Book for 1918. *R. Borlase Matthews* 309
Dictionary of Aircraft, A *W. Erskine Dommett* 68
Glossary of Aeronautical Words and Phrases 87
How an Aeroplane is Built. *Stephen Blakeney* 176
Mathematics for Engineers, Part I. *W. N. Rose* 430
Report of the Department of Scientific and Industrial Research for 1917-18 ... 309
Resistance of Air, The. *Lieutenant-Colonel R. de Villamil* 88

Riach, M. A. S. The Dynamics of Fluid Propulsion, with Special Reference to the Problem of the Airscrew ... 258-262

S

Shaw, W. R. D. The Computation of Aerodynamic Support 109
Shop Organisation: A Simple Scheme. *W. E. John* 71-80
Some Outstanding Problems in Aeronautics. *Dr. W. F. Durand* 185-201

PAGE

Steel Tubes, Tube Manipulation, and Tubular Structures for Aircraft. *W. W. Hackett* and *A. G. Hackett*, of Oldbury, Birmingham 90-103
Stone, Herbert. The Resistance to Torsion of Woods 263-265
Stress Optical Experiments. *Major A. R. Low* 341-369
Structure of Gusts, The. *Major Charles C. Turner* 285-286

T

Technical History of the Aeroplane, The. *Major F. M. Green* 3-16
Thurston, Dr. A. P. The Juvenile Lecture 54-60
Timber, Classification of Coniferæ. *W. Barnard Faraday* 169-170
Timber: Its Identification and Mechanical Properties. *W. H. Barling* ... 134-152
Turner, Major Charles C. The Structure of Gusts 285-286

U

Use of Jigs in Aeroplane Manufacture, The. *R. Borlase Matthews* 39-48

V

Villamil, R. de. The Principle of Relativity 282-284

W

Webb, H. A., and W. H. Barling. Design of Aeroplane Struts 313-329
Wilbur Wright Lecture, 1918, The Sixth. *Dr. W. F. Durand* 178-201
Wind Channel: The, Its Design and Use. *J. R. Pannell* 211-240

X

Y

Z